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MITSUBISHI ELECTRIC RESEARCH LABORATORIES, INC.
201 BROADWAY
8TH FLOOR
CAMBRIDGE, MA 02139

EXAMINER	
KIANERSI, MITRA	

ART UNIT	PAPER NUMBER
2145	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/054,011	BHATTI, GHULAM	
	Examiner	Art Unit	
	Mitra Kianersi	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05102007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01212002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's argument filed on 05/10/2007 has been fully considered, but they are not persuasive.

Paragraph [A]: Applicant on page 2 of the remarks, argues that Ayyagari et al. do not teach or suggest that "control points in those networks are not portable, and cannot be handheld". Examiner's reply: In Webopedia, which is the only online dictionary and search engine you need for computer and Internet technology a Piconet has been defined as a network of devices connected in an ad hoc fashion using Bluetooth technology. A piconet is formed when at least two devices, such as a portable PC and a cellular phone, connect. A piconet can support up to eight devices. When a piconet is formed, one device acts as the master while the others act as slaves for the duration of the piconet connection. A piconet is sometimes called a PAN.

Paragraph [B]: Applicant on page 3 of the remarks argues that a base set is not a "wired network" but only connected to the wired network and the "first part of a UpnP stack" element is completely ignored. Ayyagari et al. In paragraph [0006]- [0008] discloses that Discovery and control of devices over the expanse of large networks is possible, e.g., in accordance with the Universal Plug and Play specification ("UPnP"). UPnP specifies a method for control and data transfer based on the IP protocol. Specifically UPnP enables a controller or control point to communicate with devices to be controlled over a network. In order to enable such communications, each device to be controlled is required to have an IP address and a Dynamic Host Control Protocol ("DHCP") client. In the absence of a DHCP server, an UPnP compliant device obtains an IP address via Auto IP. Given UPnP compliant devices with their own IP addresses, a control point can discover them using a discovery message. The control point obtains the capabilities of a discovered device and logical devices within it by retrieving the description of the device provided in the Extensible Markup Language ("XML"). Following the acquisition of the description, the control point can send actions to the device, e.g., using XML with the aid of the Simple Object Access Protocol ("SOAP"). UPnP compliant devices and control points advertise their capabilities

using multicast discovery messages, i.e., messages addressed to more than one recipient, to which all devices are required to listen and respond. For instance, in response to a multicast discovery message sent by a control point, responding devices send Unicast messages addressed to the control point. Furthermore, UPnP allows a physical device to include several logical devices. In such instance, a root device description may include several embedded device descriptions in a single description. Ayyagari et al. in paragraph [0014]-[0015] discloses that the capabilities of wireless devices are made available in accordance with the universal plug-and-play (UPnP) specification to enable queries to the proxy-bridge device by users communicating over the Internet or a subnet to discover the presence of a suitable wireless device. The proxy-bridge device maintains a table to map IP addresses to particular wireless devices to facilitate specific control of the wireless devices by a remote user through IP addresses. Thus, the proxy-bridge device is a bridge forwarding requests from outside the piconet to a device in the piconet. The proxy-bridge device is also a proxy for the remote devices since it represents them to piconet devices. In addition, provide UPnP services directly over a BT device's stack without requiring support for IP. This enables such a device to discover and advertise its services in accordance with UPnP while communicating with other similar devices or while communicating with external devices via a proxy-bridge device. Extension of UPnP to a limited connectivity network such as a BT piconet via a suitable bridge requires transparent management UPnP features such as discovery, description, control, and eventing into commands in the limited connectivity network. Ayyagari et al. in [0037]-[0038] discloses that in Fig. 1, a system bus 121 that couples various system components including the system memory to the processing unit 120. The system bus 121 may be any of several types of bus structures including a memory bus or memory controller, a peripheral bus, and a local bus using any of a variety of bus architectures. By way of example, and not limitation, such architectures include Industry Standard Architecture (ISA) bus, Micro Channel Architecture (MCA) bus, Enhanced ISA (EISA) bus, Video Electronics Standards Association (VESA) local bus, and Peripheral Component Interconnect (PCI) bus, also known as Mezzanine bus.

The term "modulated data signal," means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communications media include wired media such as a wired network and a direct-wired connection and wireless media such as acoustic, RF, optical, and infrared media. Combinations of the any of the above should also be included within the scope of computer-readable media.

Paragraph [C]: Regarding claim 4, applicant on page 4, argues that a monitor 191 is not a control set and that the monitor 191 is not a wireless control set. Examiner's reply: wireless connections between devices enable inter-device interaction without physical wires. In some applications, it is desirable to provide more extensive connectivity, to allow remote control of the devices from across the Internet or discovery of remote services by devices in such networks. Paragraph [0029] of Ayyagari also discloses that the invention described provides such remote control of devices in small networks, e.g., piconets conforming to the BT specification without requiring extensive changes to existing devices by providing a proxy-bridge wireless device. By way of example, and not limitation, communications media include wired media such as a wired network and a direct-wired connection and wireless media such as acoustic, RF, optical, and infrared media. Combinations of the any of the above should also be included within the scope of computer-readable media. Paragraph [0041] of the prior art discloses a monitor 191 or other type of display device is also connected to the system bus 121 via an interface, such as a video interface 190. In addition to the monitor, computers may also include other peripheral output devices such as speakers 197 and printer 196, which may be connected through an output peripheral interface 195.

Paragraph [E]: Applicant on page 4, and regarding claim 8, argues that neither a base set over a wireless link having highest signal strength. Examiner's reply: Ayyagari in Par [0063] discloses that the connection management layer 530 and the BT-specific micro port 618 communicate with the higher-level RNDIS miniport driver 614.

Paragraph [F]: Applicant on page 5, and regarding claim 9, argues that in Claim 9 neither the first part of the UpnP tack nor addressing, discovery, description, eventing and control layers are addressed.

Paragraph [G]: Applicant on page 5 argues that in the invention the UpnP protocol stack is separated into a first part in the base and a second part in the control sets and Gajdos does not teach the deficiencies. Ayyagari in [0054] discloses that since the proposed BT devices have UPnP functionality 420, they can engage in seamless peer-to-peer device connectivity, service discovery, and control within their piconet. ESDP includes UPnP functionality 420 to augment SDP 415 in the proposed BT devices. However, UPnP functionality includes a Simple Service Discovery Protocol (SSDP), an IP multicast based discovery protocol, HTTP and XML. Native BT L2CAP layer 405 does not provide IP or the multicast channel support. Therefore, in order to adapt UPnP functionality, the SSDP functions are supported over the L2CAP layer along with HTTP and XML functioning over the L2CAP layer to enhance BT devices with UPnP functionality layered over the native BT L2CAP layer.

Because the arguments with respect to the allowableness of independent claims were found unpersuasive, these same arguments are not persuasive with respect to the other dependent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Ayyagari et al. (PGPUB No. 2001/0033554)

1. As per claim 1, an apparatus for controlling devices connected to a wired network, (one device assumes the role of a master device controlling the small number of devices within the piconet) comprising:

-a base set, connected to the wired network, including a first part of a UPnP stack; (communications media include wired media such as a wired network and a direct-wired connection and wireless media such as acoustic, RF, optical, and infrared media. (Combinations of the any of the above should also be included within the scope of computer-readable media. [0038])

-a control set, connected o the base set by a communications link, including a second part of the UPnP stack and a graphical user interface. (a monitor 191 or other type of display device is also connected to the system bus 121 via an interface, such as a video interface 190. [0041])

2. As per claim 2, the apparatus wherein the communications link is wireless. (the proxy-bridge wireless device implements a protocol stack such that the proxy-bridge device is just another device in the piconet to other devices in the piconet. [0030])

3. As per claim 3, the apparatus wherein the wireless link is established using a wireless technology including Bluetooth, Home RF, IEEE802.11a, or IEEE802.11b. (the BLUETOOTH ("BT") specifications, version 1.0 B, which is herein incorporated by reference in its entirety, describe stripped down wireless devices at different levels of complexity.[0003])

4. As per claim 4, the apparatus wherein the wireless control set includes a graphical user interface. (a monitor 191 or other type of display device is also connected to the system bus 121 via an interface, such as a video interface 190. [0041])

5. As per claims 6 and 7, the apparatus wherein the wireless control set is battery powered and the base set is powered by an AC power supply. (It is inherent, according to the device architecture)

6. As per claim 8, the apparatus wherein the network includes multiple instances of the base set and the control set communicates with a base set over a wireless link having a highest signal strength. (Communications media typically embody computer-readable instructions, data structures, program modules, or other data in a modulated

data signal such as a carrier wave or other transport mechanism and include any information delivery media. The term "modulated data signal" means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. [0038])

7. As per claim 9, the apparatus wherein the first part of the UPnP stack includes addressing, discovery, description, eventing and control layers of the UPnP stack, and the base set further comprises:

-a wrapper application layer; (just as the Connection Management 530 layer ensures data integrity to upper layers of the stack.[0057])

-a base set IP layer; (the Internet Protocol (IP) 715 is above the data link layer 705. TCP 720 and UDP 725, in turn, are above the IP layer 715, [0062]).

-a control set PPP layer; and (a point-to-point connection or communications between several devices over a common channel via a point-to-multipoint connection. [0004])

-a base set wireless stack. (the proxy-bridge wireless device implements a protocol stack such that the proxy-bridge device is just another device in the piconet to other devices in the piconet, [0030]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5, 10-11are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayyagari et al. (US. Patent No. 09/784,474) and further in view of Gajdos et al. Lund institute of technology, 2000 Sweden)

8. As per claim 5, the apparatus wherein the graphical user interfaces is a browser. Although, Ayyagari et al. do not explicitly disclose graphical user interface is a browser, Gajdos et al. in page 25, [par 3] discloses that the browser allows the user to look through the different active devices and services and then to execute actions. Page 25, [par 3]), Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to indicate graphical user interface as browser because, in order to make the wide variety of different devices work together without manual setup and configuration, a common architecture of interconnecting and controlling devices and services is needed.

9. As per claim 10, the apparatus wherein the second part of the UPnP stack includes a presentation layer of the UPnP stack, the control set further comprises;
an HTTP layer; (HTTP 535 of FIG. 5 , [0060])
-TCP/UDP layers; (the TCP/UDP protocols run over IP protocols and they provide connection-oriented and connection-less services; page 15, par [3])
-a control set IP layer; (the Internet Protocol (IP) 715 is above the data link layer 705. TCP 720 and UDP 725, in turn, are above the IP layer, [0062])
-a control set PPP layer; (a point-to-point connection or communications between several devices over a common channel via a point-to-multipoint connection. [0004])
-a control set wireless stack.(the proxy-bridge wireless device implements a protocol stack such that the proxy-bridge device is just another device in the piconet to other devices in the piconet. [0030])

10. As per claim 11, a method for controlling devices connected to a wired network of UpnP devices comprising,
-performing steps of discovery, description, eventing and control layers of a UPnP stack in a base set connected to the network by a wired communications link, the discovery, description, eventing and control layers forming a first part of a UpnP stack of a UpnP control point; (the UpnP architecture is built and defined into six sections essentially separate from each other. [page 15, section 2.3])

-performing steps of a presentation layer in a wireless control set connected to the base set via wireless communications link, the presentation layer forming a second part of the UPnP stack of the UPnP control point. (When a control point knows the services a device offers and their actions, it can invoke actions or poll the state of the variables for those services, page 18, and section 2.3.4)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitra Kianersi whose telephone number is (571) 272-3915. The examiner can normally be reached on 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cordone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mitra Kianersi
08/28/2007

JASON CARDONE
SUPERVISORY PATENT EXAMINER